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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------------|---------------------|------------------|
| 09/863,424 | 05/24/2001 | Jason Peter Andrew Charlesworth | 1263.1605 | 9407 |

5514 7590 08/10/2004

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NEW YORK, NY 10112

EXAMINER

LE, UYEN T

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2171

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,424

Applicant(s)

CHARLESWORTH ET AL.

Examiner

Uyen T. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-30 and 33-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-6, 8-15, 17-22, 24, 26-30, 34-42 and 44-51 is/are allowed.
- 6) ☒ Claim(s) 7, 23, 25, 33, 43 and 52-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 30 Oct 03, 8 Mar 04, 7 Apr 04, 9 Jun 04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments

1. Applicant's cancellation of claims 16, 31, 32 is acknowledged. Consequently, rejection to claims 16, 31, 32 is withdrawn.
2. Applicant's amendment to claim 33 is acknowledged. Consequently, rejection to claim 33 under 35 U.S.C. 101 and 35 U.S.C. 112, second paragraph is withdrawn.
3. Applicant's amendments to claims 2, 18 are acknowledged. Consequently, objection to claims 2, 18 is withdrawn.
4. Applicant seems to inadvertently introduce typographical errors into the formula of claims 7, 23, 25 while copying the existing claims into the new list of pending claims. Newly added claim 43 has the same defect. Typographical error is also introduced in claim 15 at "means for determining a corresponding identifier for an entry....."
5. Applicant seems to argue claim 33 as amended. Applicant's arguments have been fully considered but they are not persuasive. Claim 33 merely reads on the fact that the system of Lee recognizes an input sub-word by using sub-word classification (see the whole document). The claimed index is met when Lee shows the sub-word indexes (see column 10, line 48- column 11, line 2). The claimed input query is met by the unknown input sound (see the abstract). The claimed one or more portions of data in the database for comparison with the input query is met by the fact that the unknown input is recognized as part of a vocabulary in the system of Lee (see column 3, line 10- column 4, line 16). The claimed keys merely correspond to sub-word unit classifications,

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thus are met when Lee discloses sub-word classes (see column 11, line 3- column 12, line 67).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7, 23, 25, 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the formulas are incomplete.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 52, 54 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 52 merely recites pure non-functional descriptive material not tangibly embodied in any computer readable medium. Therefore, the claimed subject matter is non-statutory.

Claim 54 merely differs from claim 54 by the preamble and merely recites a computer program per se. Therefore, the claimed subject matter is non statutory.

Claim Objections

8. Claims 15, 34, 53 is objected to because of the following informalities:
- Claim 15, third paragraph from the bottom has typographical error

- Claim 34, line 2, the comma following "is" has to be deleted
- Claim 53, line 1--computer readable-- has to be inserted before "program code".

Appropriate correction is required.

Applicant is advised that should claim 54 be found allowable, claim 53 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 33, 52 is rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (US 5,675,706) of record.

Claim 33 merely reads on the fact that the system of Lee recognizes an input sub-word by using sub-word classification (see the whole document). The claimed index is met when Lee shows the sub-word indexes (see column 10, line 48- column 11, line 2). The claimed input query is met by the unknown input sound (see the abstract). The claimed one or more portions of data in the database for comparison with the input query is met by the fact that the unknown input is recognized as part of a vocabulary in

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the system of Lee (see column 3, line 10- column 4, line 16). The claimed keys merely correspond to sub-word unit classifications, thus are met when Lee discloses sub-word classes (see column 11, line 3- column 12, line 67).

Claim 52 merely recites an index for use in searching a database. Lee discloses such index (see column 10, line 48- column 11, line 2). Any index has to have entry comprising a key and pointer as claimed since index is used for searching a database. Lee further discloses the claimed "each key comprises a sequence...in the same class" when Lee shows that unknown input is recognized (see column 3, line 10- column 4, line 16). Note the sub-word classes defined in advance and comprising sub-word units confusable with other sub-word units in the same class (see column 12, lines 11-67).

Allowable Subject Matter

10. Claims 1-6, 8-15, 17-22, 24, 26-30, 34-42, 44-51 are allowed.

The following is a statement of reasons for allowance: the prior art of record does not disclose or make obvious a method and an apparatus for identification of data in a database for comparison with a query input including storing data defining sub-word unit classes of confusable sub-word units, storing an index of entries, each entry comprising an identifier, a key, a number of pointers, wherein the key is compared with the input query sub-word unit classification for retrieving pointers from the index, the pointer identifying one or more portions of the database for comparison with the input query, in combination with all the limitations recited in claims 1, 15, 17, 36, 51;

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen T. Le whose telephone number is 703-305-4134. The examiner can normally be reached on M-F 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

30 July 2004



UYEN LE
PRIMARY EXAMINER